WHAT IS CLAIMED IS:

1. A method of treating hypertension in a patient, the method comprising administering to the patient a therapeutically effective amount of a nucleic acid which inhibits epoxide hydrolase (EH) gene expression.

2. A method of claim 1, wherein the nucleic acid is complementary to a portion of a human gene encoding EH.

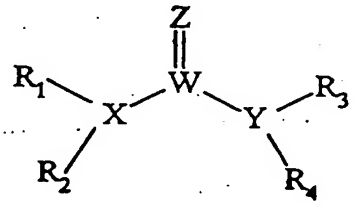
3. A method of claim 1, wherein the nucleic acid is DNA.

4. A method of claim 1, wherein the nucleic acid is RNA.

5. A method of claim 1, wherein the nucleic acid is modified to increase resistance to nucleases.

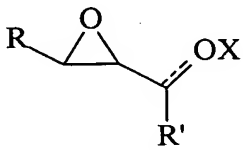
6. A method of delivering a reactive functionality to epoxide hydrolase, said method comprising contacting said epoxide hydrolase with a compound selected from the group consisting of Formula I and of Formula II, wherein

(a) compounds of Formula I have the structure



wherein Z is oxygen or sulfur, W is carbon phosphorous or sulfur, X and Y is each independently nitrogen, oxygen, or sulfur, and X can further be carbon, at least one of R_1-R_4 is hydrogen, R_2 is hydrogen when X is nitrogen but is not present when X is sulfur or oxygen, R_4 is hydrogen when Y is nitrogen but is not present when Y is sulfur or oxygen, R_1 and R_3 are each independently a substituted or unsubstituted alkyl, haloalkyl, cycloalkyl, aryl, acyl, or heterocyclic, and

(b) compounds of Formula II have the structure



wherein R is alkyl or aryl, the compound is *trans*- across the epoxide ring, OX is a carbonyl (=O) or hydroxy group (OH) and R' is a H, alkyl or aryl group, and further wherein said compound of Formula I or Formula II is derivatized with a reactive functionality.

7. A method of claim 6, wherein the reactive functionality is an alkylating agent or a Michael acceptor

8. A method of claim 7, wherein the alkylating agent is a halogen.

9. A method of claim 7, wherein the alkylating agent is an epoxide.

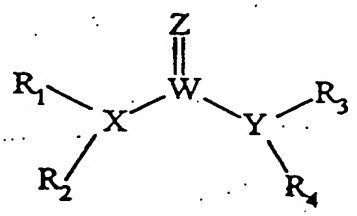
10. A method of claim 6, wherein said compound of Formula I or Formula II is derivatized with a Michael acceptor.

11. A method of claim 6, wherein said compound is a compound of Formula I.

12. A method of claim 6, wherein said compound is a compound of Formula II.

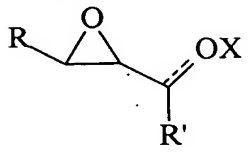
13. A method of detecting epoxide hydrolase, said method comprising contacting said epoxide hydrolase with a compound selected from the group consisting of Formula I and of Formula II, wherein

(a) compounds of Formula I have the structure



wherein Z is oxygen or sulfur, W is carbon phosphorous or sulfur, X and Y is each independently nitrogen, oxygen, or sulfur, and X can further be carbon, at least one of R_1-R_4 is hydrogen, R_2 is hydrogen when X is nitrogen but is not present when X is sulfur or oxygen, R_4 is hydrogen when Y is nitrogen but is not present when Y is sulfur or oxygen, R_1 and R_3 are each independently a substituted or unsubstituted alkyl, haloalkyl, cycloalkyl, aryl, acyl, or heterocyclic, and

(b) compounds of Formula II have the structure



wherein R is alkyl or aryl, the compound is *trans*- across the epoxide ring, OX is a carbonyl (=O) or hydroxy group (OH) and R' is a H, alkyl or aryl group,

and further wherein said compound of Formula I or Formula II is derivatized with a fluorescent or affinity label.